

REMARKS / DISCUSSION OF ISSUES

In the non-final Office Action dated January 15, 2009, claims 1-12 and 14 are pending in the application. Claims 1, 10, and 12 are independent. Claim 13 was previously cancelled.

By this response, claim 15 is newly added. Support for claim 15 can be found at least at page 8, line 22 – page 9, line 6 of the specification as originally filed. No new subject matter has been added.

35 U.S.C § 103

Claims 1, 10, and 12 stand rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over US Publication Number 2003/0128658 to Walton et al. ("Walton"), in view of US Patent Number 4,989,262 to Saito ("Saito"). Claims 2-9 and 11 stand rejected under 35 U.S.C. 103(a) over Walton and Saito in view of US Patent Number 6,917,820 to Gore et al. ("Gore"). Claim 14 stands rejected under 35 U.S.C. 103(a) over Walton and Saito in view of US Patent Number 4,736,455 to Matsue et al. ("Matsue"). Applicants respectfully traverse these rejections.

Claim 1 recites, in relevant part:

the secondary station configuring its receiver resources for processing the received data and interference by choosing selected ones of the plurality of its antennas for receiving interference signals for interference cancellation. Emphasis added.

The Office Action at page 6 admits that Walton fails to mention choosing selected ones of the plurality of its antennas for receiving interference signals for interference cancellation, and relies on Saito at Abstract and figure 3 as allegedly disclosing a receiver comprising a plurality of antennas for interference cancellation, wherein choosing selected ones of the plurality of its antennas for receiving interference signals for interference cancellation. However, a review of Saito finds that its implementation of interference cancelling is completely different from the claimed invention.

Saito relates to a demodulator comprising a plurality of auxiliary antennas,

whereby each auxiliary antenna can allegedly detect an undesired signal. Each detected undesired signal is fed from an auxiliary antenna to a signal interference canceller to be applied to a summing amplifier to cancel the interference. (Saito, figs. 3-6 and col. 3 lines 29-54).

Although Saito discloses a plurality of antennas for receiving interference signals for interference cancellation, Saito does not disclose or suggest choosing selected ones of the plurality of its antennas for receiving interference signals for interference cancellation.

Saito at col. 3, line 20 – col. 4, line 36 explains that each output of the auxiliary antennas is coupled to an interference canceller. Each interference canceller comprises a variable length delay line which is manually adjusted to introduce a delay time so that the interference cancelling signal of the canceller and the corresponding undesired signal detected by the main antenna arrive at the same time at the respective inputs of the summing amplifier. Thus, multiple undesired signals from other sources can be cancelled at the summing amplifier. Saito does not choose or select among its plurality of auxiliary antennas for receiving interference signals for interference cancellation. Rather, each detected interference signal of Saito is allegedly processed by an interference canceller and then cancelled at the summing amplifier.

Furthermore, Saito teaches the complete opposite from the claimed invention. The purpose of Saito's auxiliary antennas is to detect and cancel undesired signals. Based on the teachings of Saito, it is preferred to cancel as many undesired signals as possible in order to maximize the quality of the desired signal, and as such, the use of additional auxiliary antennas will allegedly result in the cancellation of a greater number of undesired signals. See for example Saito, col. 4 lines 22-24, "*[i]n this way, the interfering signals from [additional] sources 30-2 through 30-n can also be precisely cancelled at the summing amplifier. . . .*" In other words, Saito teaches that the use of more, not fewer, antennas for interference cancellation are preferred. Therefore, choosing selected ones of the plurality of its antennas for receiving interference signals for interference cancellation is contrary to the teachings of Saito.

Independent claims 10 and 12, although different from claim 1, include several distinguishing limitations which Applicants apply the above arguments from claim 1. For example, claim 10 is directed to a packet data transmission system and claim 12 is directed to a secondary station for use in a packet data transmission system. Both claims 10 and 12 include in part the feature of choosing selected ones of the plurality of its antennas for receiving interference signals for interference cancellation.

The Office action uses the same arguments as set forth with regard to claim 1, alleging that independent claims 10 and 12 are unpatentable over the combination of Walton and Saito. Applicants repeat the above arguments for claim 1 and apply them to the specific features recited in independent claims 10 and 12.

As such, Applicants respectfully submit that claims 10 and 12 are not unpatentable over the combination of Walton and Saito and respectfully request the withdrawal of the rejection to claims 1, 10, and 12.

Dependent claims 2-9, 11, and 14 ultimately depend upon and incorporate all the limitations of either one of allowable claims 1, 10, and 12. Furthermore, each dependent claim includes additional distinguishing limitations. For each dependent claim, Applicants repeat the above arguments from claim 1 and apply them to the respective dependent claim. The additional cited references do not cure the deficiencies of the combination of Walton and Saito, as noted with respect to the independent base claim. Thus, Applicants respectfully submit that dependent claims 2-9, 11, and 14 are allowable at least by virtue of their dependency on an allowable parent claim.

Applicants respectfully submit that the rejection of claims 1-12 and 14 under 35 U.S.C. §103(a) has been traversed and should be withdrawn.

Conclusion

In view of the foregoing, Applicants respectfully request that the Examiner withdraw the objection(s) and/or rejection(s) of record, allow all the pending claims, and find the application in condition for allowance. If any points remain in issue that

may best be resolved through a personal or telephonic interview, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

If there are any errors with respect to the fees for this response or any other papers related to this response, the Director is hereby given permission to charge any shortages and credit any overcharges of any fees required for this submission to Deposit Account No. 14-1270.

Respectfully submitted,

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